

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-22 (canceled)

23. (currently amended): A system for controlling functions in an animal processing facility having animal unit holders that travel along a conveyor past a plurality of processing stations comprising

at least one sensor positioned at an input of a first processing station for sensing the presence of an animal unit held by an animal unit holder and providing a corresponding animal unit sensing output, and

a control system having inputs and outputs for coordinating a function of [[the]] a second processing station downstream of the first processing station along the conveyor in an automated, integrated manner using the animal unit sensing outputs as control system inputs and configured to deactivate the function of the second processing station when the [[sensor detects and]] control system counts a predetermined number of animal unit holders that do not hold a corresponding animal unit are at the second processing station.

24. (previously presented): The system of claim 23, wherein the sensor senses the presence of an animal unit and a corresponding animal unit holder.

25. (previously presented): The system of claim 23, wherein the sensor senses each of a series of animal holder units to determine whether a corresponding animal unit is held thereby.

26. (previously presented): The system of claim 23, wherein the control system activates the function when the sensor detects a predetermined number of animal unit holders, each of which have a corresponding animal unit held thereby.

27. (previously presented): The system of claim 23, wherein the function is water, gas, power, and/or equipment related.

28. (previously presented): The system of claim 23, where the sensor is selected from the group consisting of infrared sensors, proximity sensors, proximity switches, metal detection sensors, ultrasonic sensors, and combinations thereof.

29. (currently amended): The system of claim 23, wherein the control system adjusts second processing station water usage based upon the animal unit outputs provided by the sensor.

30. (currently amended): The system of claim 23, wherein the control system deactivates the function of the second processing station based upon the total number of animal units in a given series and their location in the processing system.

31. (currently amended): The system of claim 23, wherein the control system tracks the

total number of animal units in a series in order to determine when to deactivate a function of the second processing station.

32. (currently amended): A system for controlling functions in an animal processing facility having animal unit holders that can hold an animal unit and travel along a conveyor past a plurality of processing stations comprising

at least one sensor selected from the group consisting of infrared sensors, proximity sensors, proximity switches, metal detection sensors, ultrasonic sensors, and combinations thereof and positioned at an input of a first processing station for sensing the presence of an animal unit and animal unit holder and providing a corresponding animal unit sensing output, and wherein the sensor senses each of a series of animal holder units to determine whether a corresponding animal unit is held thereby; and

a control system having inputs and outputs for coordinating a function of ~~[[the]]~~ a second processing station downstream of the first processing station along the conveyor in an automated, integrated manner using the animal unit sensing outputs as control system inputs and configured to activate a function of the second processing station when the sensor detects a predetermined number of animal unit holders that have a corresponding animal unit held thereby and to deactivate the function of the second processing station when the sensor detects a predetermined number of animal unit holders that do not hold a corresponding animal unit.

33. (new) A system for controlling functions as recited in claim 1, wherein the control system can detect stoppage of the conveyor based upon data from the sensor.